

Work Order ID 81924-2

81924

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March 21, 2012 8:10:00 AM

Item ID: D6101-003

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Saddle Billet, 7075

Start Date: 3/21/12

Start Qty: 100.00

100

Cust Item ID:

Required Date: 4/05/12

Req'd Qty: 100.00

100

Customer:

Reference:

Run Start *NR1*

Approvals:

Process Plan: CL

Date: 12/03/21

Tooling:

Date:

Stop

NR2

QC:

Date:

SPC (Y/N):

Date:

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan Code Accept Qty Reject Qty Reject Number Insp. Stamp

Draw Nbr

Revision Nbr

D6101

Rev B

0.00

100

100

Purchasing

Purchasing

PURCHASING

Memo

0.00

Issue P/O: 16517

- a) Description: Aluminum billet
- b) 7.875" x 6.250" x 2.00" thick
- c) Tolerance on all dimensions are +0.030"/-0.000"
- d) Grain direction along 7.875" length
- e) Material: 7075-T7351 (QQ-A-250/12)
- f) Material certification required

CL 12/03/21 100

110

110

Packaging

Packaging

Receive & Inspect for Damage & Mat'l Certs

0.00

Memo

0.00

Ensure material certification is attached

CL 12/03/21 100

Work Order ID 81924

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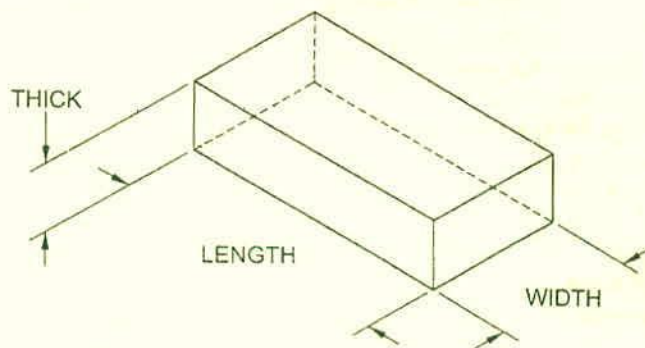
March 21, 2012 8:10:00 AM

Item ID: D6101-003 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Saddle Billet, 7075
 Start Date: 3/21/12 Start Qty: 100.00 *100* Cust Item ID:
 Required Date: 4/05/12 Req'd Qty: 100.00 *100* Customer:

Reference: Run Start *NR1*
 Stop *NR2*
 Approvals: Process Plan: Date: Tooling: Date:
 QC: Date: SPC (Y/N): Date:

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC6- Inspect dimensions to drawing Memo Ensure Material certification comply to Dwg D6101	0.00 0.00	mf 12/06/01			50	0		
130 *130* Packaging Packaging	Identify as per dwg & Stock Location: MAT42 Memo	0.00 0.00	mf 12/06/01			50	0		
140 *140* QC Quality Control	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							12/6/47J mf 12-06-01

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

B ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED
09/07/15/WB

C212/03/21

010.81924

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

Picklist Print

March 21, 2012 8:10:00 AM

Page 1

Work Order ID: 81924

Parent Item: D6101-003

Parent Item Name: Saddle Billet, 7075

Start Date: 3/21/12

Required Date: 4/05/12

Start Qty: 100.00

Required Qty: 100.00

Comments: IPP A: 01.05.04New IsucEC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D6101-003P 7075-T7351 2X6.25X7.875		Purchased	No			110	Each	0.0000	1	100			

D6101-003

_____ P12/5/31(50)

**Castle Metals®**

A. M. Castle & Co.

BORDEREAU DE MARCHANDISES

Page 1 of 1

No de Formulaire d'Emballage / Pack Slip No:987237

Expédié de / Ship From: A. M. Castle & Co. Kennesaw 4175 Royal Drive Suite 600 Kennesaw, GA 30144		Vendu à / Sold To: A. M. Castle & Co. (Canada) Inc. DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Expédié à / Ship To: WILL CALL-MONTREAL 835 SELKIRK AVENUE POINTE CLAIRE, QC H9R 3S2 CA		Livré à / Deliver To: A. M. Castle & Co. (Canada) Inc. WILL CALL-MONTREAL 835 SELKIRK AVENUE POINTE CLAIRE, QC H9R 3S2 CA	
Date d'expédition / Date Shipped	F.O.B.	Modalités de transport / Freight Terms	Transporteur / Carrier	No du Bon de connaissance / BOL No	N° de livraison / Delivery No		
27-MAR-2012	ORIGIN	Prepaid	LTL	992585	117494767		

Détails d'expédition / Shipment Details	Destination finale / Final Destination Branch -
--	--

N° de commande / Order No	N° de ligne / Line No	N° d'article / Item No	Description
2088065	2	752237.MO	2.0000.PL.7075.T7351.ALUMINUM.US1.48.5000.144.5000 CUT 2SIDED TO 6.25 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) X 7.875 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 7.875")) - ALUMINUM PLATE SAW SPECIFICATIONS: QQ-A-250/12
N° de bon de commande / Purchase Order No	Nbre de pièces / Part Number		Qté commandée / Ordered Qty
16517	YOUR ITEM NUMBER: D6101-003		50.00 PCS
			Qté Facturée / Invoice Qty 50 PCS

Détails / Details	No de coulee / Heat Number	Code mec / Mach Id	Pièces / PCS	Largeur (Pouce) / Width (IN)	Longueur (Pouce) / Length (IN)	Qté expédiée / Shipped Qty (LBS)
Usine / Mill KAISER ALUMINUM	743835A1		50			508.04

Nous certifions par la présente que le matériel couvert par cette certification est conforme aux spécifications susmentionnées et aux exigences applicables pour le matériel, y compris toute spécification faisant partie de la description. Les rapports d'essai sont archivés pour fins de consultation. Toute requête concernant du matériel défectueux sera rejetée à moins qu'elle ne soit faite par écrit à A. M. Castle & Co. dans les 60 jours suivant la livraison. Le matériel coupé sur mesure ou coupé par le client ne peut être retourné pour crédit.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Ce matériel a été reçu et inspecté par
Reviewed by Authorized Castle Metals Representative

Date:

Name:

Imported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.

SHIP TO: A M CASTLE METALS 4175 ROYAL DRIVE, SUITE 600 KENNESAW, GA 30144
SOLD TO: AM CASTLE & CO- SOLD TO 1420 KENSINGTON RD SUITE 220 OAK BROOK, IL 60523

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4253356

CUSTOMER PO NUMBER: 143579	WORK PACKAGE:	CUSTOMER PART NUMBER: 752237	SHIP RUN/LOAD: 102235/24	GOV'T CONTRACT NUMBER:		
KAISER ORDER NO: 1127477	LINE ITEM: 1	SHIP DATE: 3-FEB-2012	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: Sawed Plate
WEIGHT SHIPPED: 2876 LB	QUANTITY: 2 PCS EST.	B/L NUMBER: 2035619	GAUGE: 2.0000 IN	DIAMETER/WIDTH: 48.500 IN	LENGTH: 144.500 IN	

MHU 1556281: LOT 743757A7: 1 pieces;

MHU 1557444: LOT 743835A1: 1 pieces;

Certified Specifications

AMS 4078/RevJ
ASTM B 209/Rev10
BSS 7055/RevA
DPS 4.713/RevAH
MMS 159/RevR

AMS-QQ-A-250/12
ASTM B 594/Rev09
CMMP 025/RevU
GAMPS 9101/RevB
PS 21211/RevL

AMS-STD-2154/Rev98
BAC 5439/RevH
CSTI 006/RevD
GSS16100/RevG/Amd1

Test Code: 4297

Test Results

Lot: 743757A7 Cast 445 Drop 26 Ingot 4 Parent Lot: 573474A4 Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
T7351		LT / 2 (Min:Max)	72.6 : 72.7 (501 : 501)	62.2 : 62.3 (429 : 430)	12.3 : 12.3

(ASTM E1004)

(EN 2004-1)

Conductivity %IACS :	40.8 Min	41.0 Max
(MS/M) :	23.7 Min	23.8 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.08	0.17	1.5	0.05	2.5	0.20	5.8	0.03	0.01	0.01	TOT 0.05

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FEB 19 2012



Rev.

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4253356

Lot: 743835A1 Cast 445 Drop 42 Ingot 4 Parent Lot: 572825A8 Melted in USA

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	73.2 : 73.2 (505 : 505)	62.9 : 63.1 (434 : 435)	12.4 : 12.5

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :	40.8 Min	40.9 Max
(MS/M) :	23.7 Min	23.7 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual	0.09	0.18	1.4	0.03	2.4	0.20	5.5	0.03	0.01	0.01	TOT 0.05

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

TEST NOTES

Metal represented by this test report was 100% immersion ultrasonically tested from one side and meets the Class A and Class B requirements of all specifications referenced on this test report.

Handwritten: 12/06/01

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FEB 13 2012



CERTIFICATION

KAISER ALUMINUM FABRICATED PRODUCTS, LLC (KAISER) HEREBY CERTIFIES THAT METAL SHIPPED UNDER THIS ORDER WAS MELTED IN THE UNITED STATES OF AMERICA OR A QUALIFYING COUNTRY PER DFARS 225.872-1(a), WAS MANUFACTURED IN THE UNITED STATES OF AMERICA, AND MEETS THE REQUIREMENTS OF DFARS 252.225 FOR DOMESTIC CONTENT. THIS MATERIAL HAS BEEN INSPECTED, TESTED, AND FOUND IN CONFORMANCE WITH THE REQUIREMENTS OF THE APPLICABLE SPECIFICATIONS AS INDICATED HEREIN. ALL METAL WHICH IS SOLUTION HEAT TREATED COMPLIES WITH AMS 2772. ANY WARRANTY IS LIMITED TO THAT SHOWN ON KAISER'S STANDARD GENERAL TERMS AND CONDITIONS OF SALE. TEST REPORTS SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF KAISER ALUMINUM FABRICATED PRODUCTS, LLC LABORATORY. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTIRE ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. ISO-9001:2000 CERTIFIED.

Handwritten signature: Mike Klocke

MIKE KLOCKE, LABORATORIES SUPERVISOR

